

CLAIMS

1. A crawler belt comprising an endless high-tensile-strength belt (21) and a belt main body (22) made of elastic material and attached to an outer periphery of said high-tensile-strength belt, said high-tensile-strength belt (21) having engagement holes (21a) arranged at even intervals in a circumferential direction thereof, said belt main body (22) having escape recesses (23a) formed at locations corresponding to said engagement holes of said high-tensile-strength belt.

2. A crawler unit comprising a plurality of wheels (10) disposed separately in a front and rear direction and a crawler belt (20) trained about said wheels, wherein

said crawler belt (20) comprises an endless high-tensile-strength belt (21) and a belt main body (22) made of elastic material and attached to an outer periphery of said high-tensile-strength belt, said high-tensile-strength belt (21) having engagement holes (21a) arranged at even intervals in a circumferential direction thereof, said belt main body having escape recesses (23a) formed at locations corresponding to said engagement holes of said high-tensile-strength belt, and wherein

a driving wheel of said plurality of wheels (10) has engagement projections (12a) arranged at even intervals in a circumferential direction on an outer peripheral surface thereof, said engagement projections (12a) being adapted to be engaged with said engagement holes (21a) of said high-tensile-strength belt (21) of said crawler belt (20) and at the same time to enter said escape recesses (23a) of said belt main body (22).

3. A crawler unit according to claim 2, wherein outer peripheral surfaces of said plurality of wheels (10) are generally cylindrical surfaces.

4. A crawler unit according to claim 3, wherein said engagement holes (21a) of said high-tensile-strength belt (21) have a generally circular shape and said engagement projections (12a) of said wheel (10) have a generally semi-spherical shape.
5. A crawler unit according to claim 2, wherein said crawler unit further comprises a pair of side plates (30) extending in a front and rear direction to cover opposite side surfaces of said plurality of wheels (10), said belt main body (22) comprising an endless base part (23) and shielding brims (24, 24') continuously formed along an entire length on opposite sides of said base part, edges of said shielding brims contacting peripheral edges of said side plates.
6. A crawler unit according to claim 2, wherein said belt main body (22) includes an endless base part (23) and a plurality of tread lugs (26) formed spacedly on an outer periphery of and extending in a width direction of said base part (23), said tread lugs having a planer shape bent at least at one point, height of said tread lugs being not less than 3 times and not greater than 7 times as large as its thickness.
7. A method for manufacturing a crawler belt, the method comprising steps of:
 - preparing a first mold (70) having a plurality of mold projections (74a) arranged at even intervals on a molding surface thereof and a second mold (80) having a plurality of lug mold recesses (86) opening at a molding surface thereof;
 - setting an endless high-tensile-strength belt (21) having engagement holes (21a) arranged at even intervals in a circumferential direction thereof on said first mold (70) with said mold projections (74a) fitted into said engagement holes; and

molding an elastic material between said first mold and said second mold to obtain a belt main body (22) or a part (22') of said belt main body (22) attached to an outer periphery of at least a part of said high-tensile-strength belt, at the same time forming escape recesses (23a) by allowing said molding projections (74a) of said first mold (70) to press into said elastic material and forming tread lugs (26) by allowing said elastic material to enter said lug mold recesses (86) of said second mold (80).

8. A method for manufacturing a crawler belt, the method comprising steps of:

preparing a lower mold (70) having a plurality of mold projections (74a) arranged at even intervals on an upper surface thereof and an upper mold (80) having a plurality of lug mold recesses (86) opening at a lower surface thereof;

positioning an endless high-tensile-strength belt (21) having engagement holes (21a) arranged at even intervals in a circumferential direction thereof by placing a part of said high-tensile-strength belt (21) on said lower mold (70) and by fitting said mold projections (74a) of said lower mold into said engagement holes of said high-tensile-strength belt;

placing an elastic material on said lower mold and lowering said upper mold to mold a part (22') of a belt main body (22) on an outer periphery of said high-tensile-strength belt (21) between said upper mold and said lower mold, at the same time forming escape recesses (23a) by allowing said mold projections (74a) of said lower mold (70) to press into said elastic material and forming tread lugs (26) by allowing said elastic material to enter said lug mold recesses (86) of said upper mold (80); and

molding said endless belt main body (22) all around the periphery of said high-tensile-strength belt (21) by moving said high-tensile-strength belt (21) to place a new part of said high-tensile-strength belt (21) on said lower

mold (70), said new part adjoining said part where said part (22') of said belt main body (22) was molded, molding another part (22') of said belt main body on said new part of said high-tensile-strength belt in the foregoing way, and by repeating the procedure.

9. A method for manufacturing a crawler belt according to claim 8, wherein mold pins (74) are removably inserted into said upper surface of said lower mold (70) and head parts of said mold pins are provided as said mold projections (74a).